

JOSEPH P VIOLA Vice President Regulatory Affairs FILED

2016 NOV 10 P 3 11

November 10, 2016

PUBLIC UTILITIES COMMISSION

The Honorable Chair and Members of the Hawai'i Public Utilities Commission 465 South King Street Kekuanao'a Building, First Floor Honolulu, Hawai'i 96813

Dear Commissioners

Subject Tailff Transmittal Nos 16-01, 16-02, and 16-03 (Decoupling) (Consolidated)
Hawaiian Electric Companies' Response to Commission Informal Information
Request and Motion for Calendar Year Accrual of Rate Adjustment Mechanism
Revenues

On November 1, 2016, the Hawaiian Electric Companies filed a letter to respond to the Commission's informal information request during the 2016 decoupling presentation ("Letter") and a motion to preserve and make permanent the method of recognizing Rate Adjustment Mechanism ("RAM") revenues on a calendar year basis ("Motion") Subsequent to these filings, the Companies discovered there were items in the Letter and Motion that require correction

In the Companies' Motion, page 8, the numbers for Case C(2) (RAM Revenue Recognition with Settlement and Preservation) that were shown in the table were miscalculated. The revised corrected table is shown below

Illustrative Example Revenue Recognition (\$ in millions)	2017	2018
C(2) RAM Revenue Recognition with Settlement and Preservation	\$83	\$10
D(2) RAM Revenue Recognition with Settlement (No Preservation)	\$59	\$6
Higher revenue recognition with preservation	\$24	\$4

<sup>&</sup>lt;sup>1</sup> The "Hawanan Electric Companies" or "Companies" are Hawanan Electric Company, Inc. ( Hawanan Electric.) Maui Electric Company Limited ( Maui Electric.) and Hawan i Electric Light Company. Inc. ("Hawan'i Electric Light")

The Honorable Chair and Members of the Hawai'i Public Utilities Commission November 10, 2016 Page 2

Attachment 2 to the Companies' Letter, pages 1 and 6-7, which provide the support for the table above, were likewise revised to calculate the correct customer collection impact for Case C (RAM with Settlement and Preservation) The same correction was made in the Companies' Motion, Attachment A, pages 1 and 6-7, as Attachment 2 in the Companies' Letter and Attachment A in the Companies' Motion are identical. The revised Attachment 2 and Attachment A, in their entirety, are included as attachments to this letter.

Also, in the Companies' Motion, footnote 13 on page 8 should have stated

"In other words, the Company would recover only 5/12 of the calendar year RAM Revenue Adjustment"

Enclosed is the corrected page 8 of the Motion

The corrections identified above are limited to slightly reducing the <u>illustrative</u> impact of the Companies' request only, and do not change any other aspects of the Companies' Motion

The Companies apologize for any inconvenience it may have caused

Sincerely,

Joseph P Viola
Vice President
Regulatory Affairs
Hawaiian Electric Company, Inc

Vice President Hawai'i Electric Light Company, Inc Maui Electric Company, Limited

Enclosures cc Division of Consumer Advocacy

## Confidential Information Deleted Pursuant To Protective Order No. 2016-PO-03.

- In 2017, the Company would accrue 10 months (January to October) of recovery of the 2017 RAM adjustment (at which time the RAM would terminate and be replaced by the interim rate relief for the remaining two months of the year) <sup>12</sup>
- In 2018, the Company would accrue 12 months (January to December) of 2018 RAM

If there is no preservation of the calendar year accrual [Case D(2) RAM Revenue Recognition with Settlement (No Preservation) in Attachment A]

- In 2017, the Company would only record five months of the 2017 RAM
  recovery (June to October, and then be replaced by the interim rate relief for
  November and December of that year), leaving five months (January to May)
  permanently unrecovered <sup>13</sup>
- In 2018, the Company would only record 7 months of the 2018 RAM (June to December)

Illustrative Example Revenue Recognition (\$ in millions)	2017	2018
C(2) RAM Revenue Recognition with Settlement and Preservation	\$83	\$10
D(2) RAM Revenue Recognition with Settlement (No Preservation)	\$59	\$6
Higher revenue recognition with preservation	\$24	\$4

Based on its 2017 budget. Hawaiian Electric estimates that, without preservation of the current accrual method, it could see a negative impact to net income of roughly and

<sup>&</sup>lt;sup>12</sup> In other words, the Company would recover 10/12 of the calendar year RAM Revenue Adjustment

<sup>&</sup>lt;sup>13</sup> In other words, the Company would recover only 5/12 of the calendar year RAM Revenue Adjustment

Attachment 2 (corrected) (\$ in millions)

		B(1)	C(1)	D(1)
	A(1)	RAM Collections	RAM Collections	RAM Collections
<b>Customer RAM</b>	RAM Collected in	without	with Settlement	with Settlement
Payments	RAM Period	Settlement	and Preservation	(No Preservation)
2011	15	9	9	9
2012	22	19	19	19
2013	39	32	32	32
2014	69	57	57	57
2015	77	74	74	74
2016	88	85	85	85
2017 Illustration	83	79	86	79
2018 Illustration	10	6	24	6
2019 Illustration	14	7	7	7
	419	367	392	367

		B(2)	C(2)	D(2)
	A(2)	RAM Revenue	RAM Revenue	RAM Revenue
RAM Accruals	RAM Revenue	Recognition	Recognition with	Recognition with
for Financial	Recognition in	without	Settlement and	Settlement
Statements	RAM Period	Settlement	Preservation	(No Preservation)
2011	15	9	9	9
2012	22	19	19	19
2013	39	32	32	32
2014	69	57	69	69
2015	77	74	77	77
2016	88	85	88	88
2017 Illustration	83	79	83	59
2018 Illustration	10	6	10	6
2019 Illustration	14	7	14	7
_	419	367	404	367

- Case A RAM collection and accrual in the RAM period (calendar year Jan-Dec)
- Case B RAM collection and acrual without Settlement (i e June 1 May 31)
- Case C RAM collection and accrual with Settlement and Preservation

  Beginning 2014, RAM for RAM period = accrual for calendar year

  RAM Regulatory Asset amortized and collected upon change in base rates incorporating the RAM

  RAM Regulatory Asset collection between date of change in rates to June 1 of following year
- Case D RAM collection and accrual based on Settlement (no Preservation)

  Beginning 2014 and ending 2016, RAM for RAM period = accrual for calendar year
  RAM Regulatory Asset amortized monthly January May 2017

Attachment 2 - Overview of RAM Collections and Revenue Recognition (corrected) (\$ in millions)

	A(1) RAM	Collected	ın RAM Pe	riod (Jan-D	Dec)					
	2011 RAM	2012 RAM	2013 RAM	2014 RAM	2015 RAM	2016 RAM	2017 RAM	2018 RAM	2019 RAM	Calendar
	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual*)	(**)	(**)	(**)	Year Total
Assumed for Illus						88 4	100	10	30	
2011 Jan-May	91									150
2011 June-Dec 2012 Jan-May	5 9	13 5				,	<u>'</u>		,	
2012 June-Dec		89								22 4
2013 Jan-May			23 2			í		W		
2013 June-Dec			153							38 5
2014 Jan-May				41 7		İ				69 3
2014 June-Dec				27 5			) 110		о ,	093
2015 Jan-May					46 0					77 4
2015 June-Dec					31 4	522				
2016 Jan-May 2016 June-Dec						53 3 35 1				88 4
2010 June-Dec 2017 Jan						33 1	81			
2017 Feb							73			
2017 Mar		-					81			
2017 Apr							78			
2017 May 2017 June							84 85			
2017 July							88			83 5
2017 Aug							90			1
2017 Sept							87			
2017 Oct							88			
2017 Nov *** 2017 Dec							-			
2017 Dec 2018 Jan								08		! !
2018 Feb								07		
2018 Mar								0.8		
2018 Apr								0.8		
2018 May								08		
2018 June								08		100
2018 July								0 9 0 9		
2018 Aug 2018 Sept								09		
2018 Oct							Į.	09		
2018 Nov								08		1
2018 Dec							ļ	08		
2019 Jan							ĺ		2 4	ì
2019 Feb									22	
2019 Mar									24	14 5
2019 Apr 2019 May	}								24 25	
2019 May 2019 June									2 5 2 5	
2010 00110									2.5	
	15 0	22 4	38 5	69 3	77 4	88 4	83 5	10 0	14 5	4189

	<u>A(2) RAM</u>	Revenue !	Recognitio	n in RAM F	Period (Jar	<u>1-Dec)</u>				4
	2011 RAM (Actual)	2012 RAM (Actual)	2013 RAM (Actual)	2014 RAM (Actual)	2015 RAM (Actual)	2016 RAM (Actual*)	2017 RAM (**)	2018 RAM (**)	2019 RAM (**)	Calendar Year Total
2011 Jan-May	91	<b>(</b> ,	, ,	, ,	· ´	` ′	, ,	` ,	` '	150
2011 June-Dec	5 9	40.5					ļ	•		]
2012 Jan-May 2012 June-Dec		13 5 8 9								22 4
2013 Jan-May		0.5	23 2				, ,			20.5
2013 June-Dec			15 3							38 5
2014 Jan-May				27 5						69 3
2014 June-Dec 2015 Jan-May				41 7	31 4		1			
2015 June-Dec					46 0					77 4
2016 Jan-May						35 1	Ì		,	88 4
2016 June-Dec						53 3	•			004
2017 Jan 2017 Feb 2017 Mar 2017 Apr 2017 May 2017 June 2017 July 2017 Aug 2017 Sept 2017 Oct 2017 Nov *** 2017 Dec							8 1 7 3 8 1 7 8 8 4 8 5 8 8 9 0 8 7 8 8			83 5
2018 Jan 2018 Feb 2018 Mar 2018 Apr 2018 May 2018 June 2018 July 2018 Aug 2018 Sept 2018 Oct 2018 Nov 2018 Dec								08 07 08 08 08 09 09 09		100
2019 Jan 2019 Feb 2019 Mar 2019 Apr 2019 May 2019 June									2 4 2 2 2 4 2 4 2 5 2 5	14 5
	15 0	22 4	38 5	69 3	77 4	88 4	83 5	10 0	14 5	4189

 $<sup>^{\</sup>star}$  The 2016 RAM schedule above assumes that there is no rate case rate order prior to June 2017, which is likely based on the current HE rate case plans

<sup>\*\* 2017-2019</sup> RAM amounts are for illustration purposes only

<sup>\*\*\*</sup> Assume interim D&O in November 2017 incorporating RAM in base rates

	B(1) RAI	M Collecti	ons from	Customer	s without	Settlemen	<u>t</u>			
	2011	2012	2013	2014	2015	2016	2017	2018	2019	Calendar
	RAM	RAM	RAM	RAM	RAM	RAM	RAM	RAM	RAM	Year
	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual*)	(**)	(**)	(**)	Total
Assumed for Illust						88 4	100	10	30	
2011 Jan-May										0.1
2011 June-Dec	9 1						1			91
2012 Jan-May	59					1	l			40.5
2012 June-Dec		13 5								19 5
2013 Jan-May		89					i			20.0
2013 June-Dec			23 2							32 2
2014 Jan-May			15 3				1		• •	
2014 June-Dec				417						57 0
2015 Jan-May				27 5			Ì		i	
2015 June-Dec				_, _	46 0					73 5
2016 Jan-May					31 4		· 			
2016 June-Dec					J, 4	53 3				84 6
2017 Jan						7 2				
2017 Feb						64				
2017 Mar						7 2				
2017 Apr						69				
2017 May						75				
2017 June							8 5			78 9
2017 July							88			709
2017 Aug							90			
2017 Sept							87			
2017 Oct							88			
2017 Nov ***							-			
2017 Dec							-		1	
2018 Jan								-		1
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2018 Apr								-		
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2018 June							ļ	8 0		60
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2018 Nov								8 0		1
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2019 Jan							Ì	08		1
2019 Feb								07		
2019 Mar								08		65
2019 Apr								8 0		
2019 May								8 0		
2019 June									2 5	
	15 0	22 4	38 5	69 3	77 4	88 4	1 i 43 7	10 0	2 5	367 3
	150	22 4	36 5	09.3	114	00 4	<u> 40/</u>	100		1 30/3

	B(2) RA	M Revenu	e Recogn	ition with	out Settle	ment				,
	2011 RAM (Actual)	2012 RAM (Actual)	2013 RAM (Actual)	2014 RAM (Actual)	2015 RAM (Actual)	2016 RAM (Actual*)	2017 RAM (**)	2018 RAM (**)	2019 RAM (**)	Calendar Year Total
2011 Jan-May	(* 10155)	» (» (» (» (» (»)	(* 101007)	(, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(* 15122.)	(* .5.25. )	. ,	` '	` ,	1
2011 June-Dec	9 1									91
2012 Jan-May	5 9									195
2012 June-Dec		13 5				İ				!
2013 Jan-May		8 9	22.2							32 2
2013 June-Dec 2014 Jan-May			23 2 15 3							j i
2014 June-Dec			15.5	41 7						57 0
2015 Jan-May				27 5						
2015 June-Dec				_, _	46 0					73 5
2016 Jan-May					, 31 4					84 6
2016 June-Dec						53 3				04 0
2017 Jan						7 2				1
2017 Feb						64				
2017 Mar						7 2 6 9				
2017 Apr 2017 May						75				
2017 May 2017 June						, 5	8.5			
2017 July							88			78 9
2017 Aug							90			1
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2019 May								08		
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2011 June-Dec 9 1 2012 Jan-May 5 9 2012 June-Dec 13 5	
(Actual) (Actual) (Actual) (Actual) (Actual) (Actual) (**) (**) (**) (**) (**) (**) (**) (*	9 1 9 5
Assumed for Illust 88 4 100 10 30 2011 Jan-May 2011 June-Dec 9 1 2012 Jan-May 5 9 2012 June-Dec 13 5 1	9 1 19 5
2011 Jan-May 2011 June-Dec 9 1 2012 Jan-May 5 9 2012 June-Dec 13 5	19 5
2011 June-Dec 9 1 2012 Jan-May 5 9 2012 June-Dec 13 5	19 5
2012 Jan-May 5 9 2012 June-Dec 13 5	
2012 June-Dec 13.5	
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	32 2
2013 June-Dec 23 2	
2014 Jan-May 15 3	. 7 O
2014 June-Dec 41 /	57 0
2015 Jan-May 27 5	73 5
2015 June-Dec 46 0 1	•
2016 Jan-May 31 4	34 6
2016 June-Dec 53.3 i	
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2017 Mar 7.2	
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2017 May 7.5	
2017 June 8.5	35 9
2017 July   88	
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2017 Sept 8 7 2017 Oct 8 8 8	
2017 Nov *** (2 2) 5 7	
2017 Dec (2 2) 57	
2018 Jan (2 2) 57 -	
2018 Feb (2.2) 5.7	
2018 Mar (2 2) 5.7 -	
2018 Apr (2 2) 57 -	
2018 May (2 2) 5 7 -	
2018 June 0 8 2018 July 0 9	23 5
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2018 Sept 0 9	
2018 Oct 0 9	
2018 Nov 0.8	
2018 Dec 0 8	
2019 Jan 0 8	
2019 Feb 0 7	
2019 Mar 0.8	65
2019 Apr 0.8	- 0
2019 May 0 8	
2019 June 2 5	
150 224 232 693 774 884 835 100 251 39	91 7

14 5 403 7

	<u>C(2) RAN</u>	/ Revenue	Recognition	on with Set	tlement ar	ıd Preserva	tion			_
	2011 RAM (Actual)	2012 RAM (Actual)	2013 RAM (Actual)	2014 RAM (Actual)	2015 RAM (Actual)	2016 RAM (Actual*)	2017 RAM (**)	2018 RAM (**)	2019 RAM (**)	Calendar Year Total
2011 Jan-May										91
2011 June-Dec	9 1 5 9									
2012 Jan-May 2012 June-Dec	39	13 5								195
2013 Jan-May		89				1				1
2013 June-Dec			23 2							32 2
2014 Jan-May				27 5						1
2014 June-Dec				41 7						69 3
2015 Jan-May					31 4					77 4
2015 June-Dec					46 0					1 // 4
2016 Jan-May						35 1				88 4
2016 June-Dec						53 3	١			
2017 Jan							81			1
2017 Feb 2017 Mar							73 81			-
2017 Mai 2017 Apr							78			]
2017 May							84			
2017 June							85			1
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2017 Aug							90			1
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2017 Oct							88			-
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2019 Feb									2 2 2 4	
2019 Mar 2019 Apr									24	
2019 Apr 2019 May									2 5	
2019 June									25	
_0.000110							Ì		~ 0	1

69 3

77 4

88 4

83 5

10 0

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150

23 2

	D(1) RAN	/ Collection	ns from Cu	stomers w	ıth Settlem	ent (No Pr	esesrvati	on)		
	2011	2012	2013	2014	2015	2016	2017	2018	2019	]
	RAM	RAM	RAM	RAM	RAM	RAM	RAM	RAM	RAM	Calendar
	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual*)	(**)	(**)	(**)	Year Total
Assumed for Illus	t					88 4	100	10	30	ļ
2011 Jan-May										91
2011 June-Dec	9 1						ļ			1 9'
2012 Jan-May	59						ì			105
2012 June-Dec		13 5					!			195
2013 Jan-May		89					ì			1 22.2
2013 June-Dec			23 2				,			32 2
2014 Jan-May			15 3				i			
2014 June-Dec				417			]			57 0
2015 Jan-May				27 5						i
2015 June-Déc					46 0					73 5
2016 Jan-May					31 4					i
2016 June-Dec						53 3				84 6
2017 Jan						72				i
2017 Feb						6 4				1
2017 Mar						7 2				ł
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2017 May						7 5				]
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2017 July							88			,03
2017 Aug							90			ŀ
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2018 May								-		
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2018 July								09		
2018 Aug								09		
2018 Sept								09		
2018 Oct								09		
2018 Nov								8 0		
2018 Dec								0.8		<b>!</b>
2019 Jan							[	8 0		
2019 Feb								07		
2019 Mar								8 0		65
2019 Apr							1	0.8		
2019 May								8 0		
2019 June									2 5	•
	15 0	22 4	38 5	69 3	77 4	88 4	1 437	10 0	25	1 367 3
										, 00, 0

	<u>D(2)</u> RA	M Revenue	Recogniti	on with Se	ttlement (N	No Preserva	ation)			,
	2011 RAM (Actual)	2012 RAM (Actual)	2013 RAM (Actual)	2014 RAM (Actual)	2015 RAM (Actual)	2016 RAM (Actual*)	2017 RAM (**)	2018 RAM (**)	2019 RAM (**)	Calendar Year Total
2011 Jan-May	0.4									91
2011 June-Dec 2012 Jan-May	9 1 5 9									! !
2012 June-Dec		13 5								195
2013 Jan-May		8 9					Ì			322
2013 June-Dec 2014 Jan-May			23 2	27 5			! 			} !
2014 June-Dec				41 7			ŀ			693
2015 Jan-May					31 4		Ì			77.4
2015 June-Dec 2016 Jan-May					46 0	35 1				
2016 June-Dec						53 3	J			88 4
2017 Jan			3 1			,	-			ĺ
2017 Feb 2017 Mar			28 31				-			
2017 Apr			30							1
2017 May			32				-			
2017 June 2017 July							85 88			590
2017 July 2017 Aug							90			
2017 Sept							87			
2017 Oct							88			
2017 Nov *** 2017 Dec										
2018 Jan							i	-		ì
2018 Feb								-		
2018 Mar 2018 Apr								-		
2018 May								-		
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2019 May 2019 June								UG	2 5	
							<u> </u>			1
	15 0	22 4	38 5	69 3	77 4	88 4	1 437	10 0	25	367 3

## ATTACHMENT A PAGE 10 OF 10

## Monthly Factors (Assumed for Illustration) Jan 8 10%

Jan	8 10%
Feb	7 26%
Mar	8 10%
Apr	7 84%
May	8 44%
Jun	8 47%
Jul	8 77%
Aug	9 04%
Sep	8 68%
Oct	8 78%
Nov	8 26%
Dec	8 26%
	100 00%

Attachment 2 (corrected) (\$ in millions)

		B(1)	C(1)	D(1)
	A(1)	RAM Collections	RAM Collections	RAM Collections
<b>Customer RAM</b>	RAM Collected in	without	with Settlement	with Settlement
Payments	RAM Period	Settlement	and Preservation	(No Preservation)
2011	15	9	9	9
2012	22	19	19	19
2013	39	32	32	32
2014	69	57	57	57
2015	77	74	74	74
2016	88	85	85	85
2017 Illustration	83	79	86	79
2018 Illustration	10	6	24	6
2019 Illustration	14	7	7	7
	419	367	392	367

RAM Accruals for Financial Statements	A(2) RAM Revenue Recognition in RAM Period	B(2) RAM Revenue Recognition without Settlement	C(2) RAM Revenue Recognition with Settlement and Preservation	D(2) RAM Revenue Recognition with Settlement (No Preservation)
2011	15	9	9	9
2012	22	19	19	19
2013	39	32	32	32
2014	69	57	69	69
`2015	77	74	77	77
2016	88	85	88	88
2017 Illustration	83	79	83	59
2018 Illustration	10	6	10	6
2019 Illustration	14		14	7
_	419	367	404	367

- Case A RAM collection and accrual in the RAM period (calendar year Jan-Dec)
- Case B RAM collection and acrual without Settlement (i e June 1 May 31)
- Case C RAM collection and accrual with Settlement and Preservation

  Beginning 2014, RAM for RAM period = accrual for calendar year

  RAM Regulatory Asset amortized and collected upon change in base rates incorporating the RAM

  RAM Regulatory Asset collection between date of change in rates to June 1 of following year
- Case D RAM collection and accrual based on Settlement (no Preservation)

  Beginning 2014 and ending 2016, RAM for RAM period = accrual for calendar year
  RAM Regulatory Asset amortized monthly January May 2017

Attachment 2 - Overview of RAM Collections and Revenue Recognition (corrected) (\$ in millions)

	A(1) RAM	Collected	ın RAM Pe	riod (Jan-I	Dec)					
	2011	2012	2013	2014	2015	2016	2017	2018	2019	
	RAM	RAM	RAM	RAM	RAM	RAM	RAM	RAM	RAM	Calendar
	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual*)	(**)	(**)	(**)	Year Total
Assumed for Illus	tration					88 4	100	10	30	
2011 Jan-May	9 1									45.0
2011 June-Dec	59									15 0
2012 Jan-May		13 5					ĺ			
2012 June-Déc		89								22 4
2013 Jan-May			23 2						•	
2013 June-Dec			15 3							38 5
2014 Jan-May				41 7			i			
2014 June-Dec				27 5						69 3
2015 Jan-May					46 0		l	•		
2015 June-Dec					31 4					77 4
2016 Jan-May						53 3	I			i
2016 June-Dec						35 1				88 4
2017 Jan						• •	81	•		1
2017 Feb							73			
2017 Mar							8 1			
2017 Apr							78			
2017 May							8.4			
2017 June							85			83 5
2017 July							88			633
2017 Aug							90			
2017 Sept							87			
2017 Oct							88		,	
2017 Nov ***							-			ļ
2017 Dec							-			!
2018 Jan								08		1
2018 Feb								07		
2018 Mar								0.8		Ŗ.
2018 Apr								08		1
2018 May								08		]
2018 June			'					0.8		100
2018 July							l	09		1
2018 Aug								09		
2018 Sept								09		
2018 Oct								09		1
2018 Nov								8 0		1
2018 Dec							ļ	8 0		ļ
2019 Jan							ĺ		2 4	
2019 Feb									22	
2019 Mar									24	14 5
2019 Apr							,		2 4	'''
2019 May							<u>!</u>		2 5	1
2019 June									2 5	Į.
	15 0	22 4	38 5	69 3	77 4	88 4	83.5	10 0	14 5	1 4100
	150	22.4	30 5	09.3	// 4	00 4	, 633 -	100	145	4189

	A(2) RAM	A(2) RAM Revenue Recognition in RAM Period (Jan-Dec)								ı
	2011 RAM (Actual)	2012 RAM (Actual)	2013 RAM (Actual)	2014 RAM (Actual)	2015 RAM (Actual)	2016 RAM (Actual*)	2017 RAM (**)	2018 RAM (**)	2019 RAM (**)	Calendar Year Total
2011 Jan-May	9 1	(Actual)	(Actual)	(Actual)	(Actual)	(ricidal )	( )	( )	( )	ĺ
2011 June-Dec	59									150
2012 Jan-May		13 5				1				22 4
2012 June-Dec		89				J				22.4
2013 Jan-May			23 2			j				38 5
2013 June-Dec			15 3							!
2014 Jan-May				27 5						693
2014 June-Dec				41 7	04.4					<u> </u>
2015 Jan-May					31 4					77 4
2015 June-Dec					46 0	25.4	l i			1
2016 Jan-May 2016 June-Dec						35 1 53 3				88 4
2017 Jan						333 1	81			* 1
2017 Feb					•		73			l
2017 Mar							81			
2017 Apr							78			
2017 May							8 4			
2017 June							8.5			83 5
2017 July							88			03.3
2017 Aug							90			
2017 Sept							87			]
2017 Oct							88			İ
2017 Nov ***							•			
2017 Dec		•				ļ	-			ļ
2018 Jan								0.8		
2018 Feb								07		
2018 Mar								08		Į
2018 Apr							1	8 0		1
2018 May 2018 June								8 0 8 0		
2018 July								09		100
2018 Aug								09		
2018 Sept								09		
2018 Oct								09		
2018 Nov								08		
2018 Dec								08		
2019 Jan							Í		2 4	i
2019 Feb									2 2	
2019 Mar									2 4	
2019 Apr									24	14 5
2019 May							]		25	1
2019 June							ļ		2 5	
	15 0	22 4	38 5	69 3	77 4	88 4	835	10 0	14 5	4189

<sup>\*</sup> The 2016 RAM schedule above assumes that there is no rate case rate order prior to June 2017, which is likely based on the current HE rate case plans

<sup>\*\* 2017-2019</sup> RAM amounts are for illustration purposes only

<sup>\*\*\*</sup> Assume interim D&O in November 2017 incorporating RAM in base rates

	B(1) RA	M Collecti	ons from	Customer	s without	Settlemen				
	2011	2012	2013	2014	2015	2016	2017	2018	2019	Calendar
	RAM	RAM	RAM	RAM	RAM	RAM	RAM	RAM	RAM	Year
	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual*)	(**)	(**)	(**)	Total
Assumed for Illust						88 4	100	10	30	
2011 Jan-May										0.4
2011 June-Dec	9 1									9 1
2012 Jan-May	59									10.5
2012 June-Dec		13 5								19 5
2013 Jan-May		89						•		
2013 June-Dec			23 2							32 2
2014 Jan-May			15 3			i		0 1		
2014 June-Dec				417						57 0
2015 Jan-May				27 5		i				
2015 June-Dec					46 0					73 5
2016 Jan-May					31 4		•			i i
2016 June-Dec					J. 7	53 3				84 6
2017 Jan						72	I	•		ì
2017 Feb						64				
2017 Mar						72				
2017 Apr						69				
2017 May						75				ŀ
2017 June							8 5			78 9
2017 July							88			109
2017 Aug							90			1
2017 Sept							87			1
2017 Oct							88			
2017 Nov ***							-			ì
2017 Dec							-			•
2018 Jan								~		
2018 Feb								-		
2018 Mar								-		
2018 Apr								-		
2018 May								•		ļ
2018 June								0.8		60
2018 July								09		
2018 Aug								09		
2018 Sept								09		
2018 Oct								09		
2018 Nov								0.8		
2018 Dec							!	0.8		ļ
2019 Jan								08		Ì
2019 Feb								07		
2019 Mar							)	08		6.5
2019 Apr								8 0		1
2019 May								08		
2019 June									2 5	
							<u> </u>			<u> </u>
	15 0	22 4	38 5	69 3	77 4	88 4	437	10 0	2 5	1 367 3

	<u>B(2) RA</u>	M Revenu	<u>e Recogn</u>	ition witho	out Settler	<u>ment</u>				ì
	2011 RAM (Actual)	2012 RAM (Actual)	2013 RAM (Actual)	2014 RAM (Actual)	2015 RAM (Actual)	2016 RAM (Actual*)	2017 RAM (**)	2018 RAM (**)	2019 RAM (**)	Calendar Year Total
2011 Jan-May	(, ,5,5,5,1)	(* 10122.)	(* 12121)	( 101227)	(,	V	` '	( )	. ,	9 1
2011 June-Dec	91					ļ				31
2012 Jan-May 2012 June-Dec	5 9	13 5								19 5
2013 Jan-May	•	89					ļ 1		ļ	
2013 June-Dec		Ų J	23 2							32 2
2014 Jan-May			15 3			Ì		•		57 0
2014 June-Dec				41 7						3, 0
2015 Jan-May				27 5	46 0					73 5
2015 June-Dec 2016 Jan-May					31 4	1	l I			
2016 June-Dec					917	53 3				84 6
2017 Jan						72	i I			
2017 Feb						64				
2017 Mar 2017 Apr						7 2 6 9				
2017 May						75				
2017 June							8 5			78 9
2017 July							88			109
2017 Aug							90			
2017 Sept							87 88			
2017 Oct 2017 Nov ***							-			
2017 Dec										
2018 Jan	•						ĺ	- ''		i
2018 Feb								-		ĺ
2018 Mar								-		İ
2018 Apr 2018 May								-		ļ
2018 June								08		
2018 July							ŀ	09		60
2018 Aug								09		
2018 Sept								09		
2018 Oct								09		1
2018 Nov								8 0		İ
2018 Dec 2019 Jan							; 1	. 08 08		! !
2019 Feb							!	07		
2019 Mar								0.8		65
2019 Apr							1	08		65
2019 May								08		<u> </u>
2019 June									2 5	
	15 0	22 4	38 5	69 3	77 4	88 4	43.7	10 0	2 5	3673

	C(1) RAN	I Collection	ns from Cu	stomers w	uth Settlen	<u>nent and Pr</u>	eservation	_		
	2011	2012	2013	2014	2015	2016	2017	2018	2019	
	RAM	RAM	RAM	RAM	RAM	RAM	RAM	RAM	RAM	Calendar
	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual*)	(**)	(**)	(**)	Year Total
Assumed for Illust		(	(, , , , , , , , , , , , , , , , , , ,	(	(*,	88 4	100	10	30	
2011 Jan-May						00 .	.00	.0	-	
2011 June-Dec	9 1									9 1
2012 Jan-May	59	,				3				 
•	33	15.5			*					195
2012 June-Dec		13 5 8 9					ļ			
2013 Jan-May		69	22.2							32 2
2013 June-Dec			23 2				,			
2014 Jan-May			15 3							57 0
2014 June-Dec				41 7						
2015 Jan-May				27 5						73 5
2015 June-Dec					46 0					
2016 Jan-May					31 4					84 6
2016 June-Dec						53 3	ļ			
2017 Jan						72				:
2017 Feb						64				
2017 Mar						72				
2017 Apr						69				
2017 May						7 5	9.5			
2017 June							85			85 9
2017 July							88			
2017 Aug							90			
2017 Sept 2017 Oct							87 88			
2017 Oct 2017 Nov ***			(2 2)				57			
2017 Dec			(2 2)				57			,
2018 Jan			(2 2)				57		' '	
2018 Feb			(2 2)				57			
2018 Mar			(2 2)				57	_		
2018 Apr			(2 2)				57			
2018 May			(2 2)				5 7 5 7	•		
2018 June			(2 2)				37	08	!	
2018 July								09		23 5
•										
2018 Aug								09		
2018 Sept								09		
2018 Oct								09		
2018 Nov								08		
2018 Dec		•					l	08		
2019 Jan							•	08		
2019 Feb								07		l
2019 Mar								08		65
2019 Apr								0.8		1
2019 May								08		1
2019 June									2 5	l
							<u> </u>			
	15 0	224	23 2	69 3	77 4	88 4	83 5	10 0	25	391 7

	C(2) RAN	<u> Revenue</u>	Recognition	on with Set	<u>tlement ar</u>	<u>id Preserva</u>	tion			
	2011 RAM (Actual)	2012 RAM (Actual)	2013 RAM (Actual)	2014 RAM (Actual)	2015 RAM (Actual)	2016 RAM (Actual*)	2017 RAM (**)	2018 RAM (**)	2019 RAM (**)	Calendar Year Total
2011 Jan-May	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual )	( )	( )	( )	l
2011 June-Dec	9 1									91
2012 Jan-May	59					j				195
2012 June-Dec		13 5					l			195
2013 Jan-May		8 9								32 2
2013 June-Dec			23 2				!			,
2014 Jan-May				27 5						693
2014 June-Dec				41 7	31 4		!			i t
2015 Jan-May					46 0					77 4
2015 June-Dec 2016 Jan-May					400	35 1	<b>,</b>			₹ Î
2016 June-Dec						53 3	[			88 4
2017 Jan							81			Ì
2017 Feb							73			
2017 Mar							81			
2017 Apr							78			
2017 May							84			
2017 June							85 88			83 5
2017 July 2017 Aug							90			Ī
2017 Aug 2017 Sept							87			
2017 Oct							88			}
2017 Nov ***							-			Ì
2017 Dec							-			
2018 Jan								8 0		İ
2018 Feb								07		
2018 Mar								8 0		
2018 Apr								08		
2018 May								08		ļ
2018 June								08 09		100
2018 July 2018 Aug							<u> </u>	09		1
2018 Sept								09		1
2018 Oct							•	09		İ
2018 Nov							Ì	08		
2018 Dec							1	0.8		ł
2019 Jan							1		2 4	
2019 Feb							1		2 2	
2019 Mar									24	
2019 Apr									24	1 ,
2019 May 2019 June									25	
2019 June							-		2.5	
	15 0	22 4	23 2	69 3	77 4	88 4	83 5	100	14 5	403 7

	D(1) RAN	/ Collection	ns from Cu	stomers w	ıth Settlem	nent (No Pr	esesrvatı	on)		
	2011	2012	2013	2014	2015	2016	2017	2018	2019	
	RAM	RAM	RAM	RAM	RAM	RAM	RAM	RAM	RAM	Calendar
	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual*)	(**)	(**)	(**)	Year Total
Assumed for Illust						88 4	100	10	30	
2011 Jan-May	0.4									91
2011 June-Dec	91									l I
2012 Jan-May	5 9	12.5								195
2012 June-Dec		13 5 8 9								) !
2013 Jan-May		09	23 2							32 2
2013 June-Dec 2014 Jan-May			153				,	•		ì
2014 June-Dec			13.3	41 7						57 0
2015 Jan-May				27 5		!			•	! !
2015 June-Dec				21 3	46 0					73 5
2016 Jan-May					31 4		4			1
2016 June-Dec					314	53 3				84 6
2017 Jan						7 2				, 1
2017 Feb						64				
2017 Mar						7 2				
2017 Apr						69				
2017 May						75				1
2017 June							85			78 9
2017 July							88			
2017 Aug							90			
2017 Sept							87			
2017 Oct							88			
2017 Nov *** 2017 Dec										
2018 Jan							Ţ	_		}
2018 Feb								_		
2018 Mar				,			1	_		
2018 Apr								_		ļ
2018 May							1			
2018 June								0.8		1
2018 July								09		60
2018 Aug							1	09		•
2018 Sept								09		1
2018 Oct								09		4
2018 Nov	,							08		1
2018 Dec								8 0		
2019 Jan								08		Ì
2019 Feb								07		1
2019 Mar							ľ	0.8		65
2019 Apr							ļ	08		
2019 May							[	0 8		
2019 June							Į.		2 5	
	15 0	22 4	38 5	69 3	77 4	88 4	437	10 0	25	367 3
	<del>_</del>		<del></del>							

	D(2) RA	M Revenue	Recogniti	on with Se	ttlement (f	No Preserva	ation)	<u> </u>		
	2011 RAM (Actual)	2012 RAM (Actual)	2013 RAM (Actual)	2014 RAM (Actual)	2015 RAM (Actual)	2016 RAM (Actual*)	2017 RAM (**)	2018 RAM (**)	2019 RAM (**)	Calendar Year Total
2011 Jan-May	,,	,,	,,	, ,	,	,,	` ′	. ,	` '	91
2011 June-Dec	9 1									91
2012 Jan-May	5 9						ĺ			195
2012 June-Dec		13 5				:				
2013 Jan-May 2013 June-Dec		8 9	23 2							32 2
2013 June-Dec 2014 Jan-May			23 2	27 5						ļ 1
2014 June-Dec				417						693
2015 Jan-May				***	31 4					, İ
2015 June-Dec					46 0					77 4
2016 Jan-May						35 1	Í			88 4
2016 June-Dec						53 3	ļ			004
2017 Jan			3 1				<b>†</b> -			İ
2017 Feb			28				-			-
2017 Mar			31				-			
2017 Apr 2017 May			3 0 3 2				-			
2017 May 2017 June			\$ Z				85			•
2017 July							88			590
2017 Aug							90			
2017 Sept							87			•
2017 Oct							88			_
2017 Nov ***		,					-			]
2017 Dec										1
2018 Jan							Ì	-		ĺ
2018 Feb								-		
2018 Mar								-		
2018 Apr								-		
2018 May 2018 June								08		
2018 July								09		60
2018 Aug								09		
2018 Sept								09		
2018 Oct								09		
2018 Nov -								0.8		
2018 Dec							]	8 0		ļ
2019 Jan							Ì	0.8		ì
2019 Feb								07		
2019 Mar								8 0		65
2019 Apr								08		
2019 May								8 0	<b>-</b> -	
2019 June									2 5	
	15 0	22 4	38 5	69 3	77 4	88 4	43 7	10 0	2 5	1 367 3

## Monthly Factors (Assumed for Illustration) Jan 8 10%

Jan	8 10%
Feb	7 26%
Mar	8 10%
Apr	7 84%
May	8 44%
Jun	8 47%
Jul	8 77%
Aug	9 04%
Sep	8 68%
Oct	8 78%
Nov	8 26%
Dec	8 26%
	100 00%